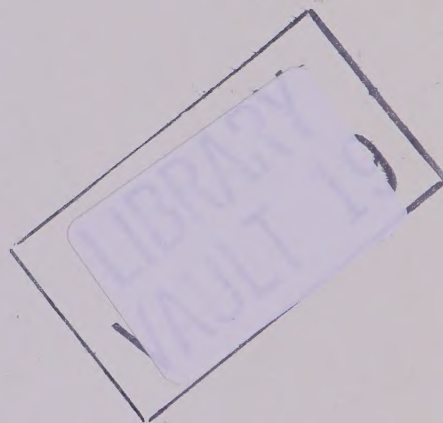


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THE ALBERTA AGRICULTURAL RESEARCH TRUST

Annual Report



1967 - 1968



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In Alberta we say, "Agriculture is a business and a science". The continuing strength of our province requires, among several factors, progressive research programs on those problems in both fields which are of practical concern to the people in or allied to the agricultural industry.

Also, Alberta is one of the key food producing areas in Canada and the necessity for more food in the future — nationally and internationally — is well documented. Our agriculture can continue to make a significant contribution to keeping the food basket full only through policies, programs and services based on scientific facts provided by research.

It was in this belief and with these objectives that the Alberta Department of Agriculture, in consultation and co-operation with the Faculty of Agriculture of the University of Alberta, established the Alberta Agricultural Research Trust on April 1, 1966. It is with sincerity and pleasure that I acknowledge the enthusiastic response by the scientists on the Faculty staff.

A special word of thanks, too, is extended to those in industry, commodity groups and others who have financially supported the Trust. We are pleased that the concept of the Trust has proven to be of appeal and of value to them. This co-operation and response ensures the continued progress of Alberta.

Our first annual report is herewith submitted. May its contents confirm your expectations of the Trust.

E. E. Ballantyne, D.V.M., P.Ag., F.R.S.H.
Chairman, Board of Trustees

INTRODUCTION

BOARD OF TRUSTEES

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Dean, Faculty of Agriculture, University of Alberta

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University of Alberta

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Alberta Department of Agriculture

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University of Alberta

MR. C. J. McANDREWS
Alberta Department of Agriculture

DR. W. P. SKOROPAD
University of Alberta

MR. J. G. STOTHART
Canada Department of Agriculture

ANDREW, W. T.
Vegetable variety trials

ANDREW, W. T.
Potato nutrition studies

ANDREW, W. T.,
PRESTON, T. A., &
SKOROPAD, W. P.
Factors affecting plant stand in potato fields

ANDREW, W. T., &
HARGRAVE, P. D.
Chemical vine killing of potato

APEDAILE, L. P.
To assess technical input/output relationships for Northern Alberta farms

ARMSTRONG, J. G.
Improvements in butter quality and manufacturing

ARMSTRONG, J. G.
Quality studies on Alberta potatoes

BAILEY, A. W.
Range improvement and forage production in the parkland area

BERG, E. R.
Hedging procedures in cattle feeding operations

BERG, R. T.
Genetic effects on carcass composition in swine

BOWLAND, J. P.
Rapeseed meal for reproduction and lactation in swine

CLANDININ, D. R.
Feeding value of solvent-processed rapeseed meal for laying and breeding chickens and turkeys

CLEGG, L. F., &
WOOD, F. W.
Improving cream quality

COLOTELO, N.
Effect of crop residues on developing sclerotia of Sclerotinia species

COMBS, W.
Recombination of quantitative traits in sheep

CORNS, W. G.
Shore vegetation control

DE MAN, J. M.
Quality deterioration of selected food products under modern merchandising conditions

DE MAN, J. M.
A study of methods of meat tenderness measurement

GOODING, R. H.
A study of the insect predators of some cutworm species

GRIEVE, C. M.
Effect of physiological growth stage at harvest on forage quality and nutrient productivity

GRIEVE, C. M.
Forage evaluation in relation to animal productivity

HARDIN, R. T.
Genetic effects on body composition in poultry

HARRISON, H. P.
Analysis of local weather data for grain and hay drying systems

HARRISON, H. P.
Effect of selected mechanical parameters on threshing efficiency

GRANTEE(S) NAMES
AND TITLES OF ALL
PROJECTS AWARDED
ALBERTA. AGRICULTURAL
RESEARCH TRUST
GRANTS

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RESEARCH TRUST
GRANTS

- HARRISON, H. P.**
Effect of traffic compaction on the cultural practice of zero tillage
- HAWKINS, M. H.,
MANNING, T. W., &
WARRACK, A. A.**
Livestock marketing practices
- HIRUKI, C.**
Potato viruses, virus diseases and their control
- HOCKING, B.**
An assessment of the pesticide residue situation in an urban milieu
- HOCKING, B.**
The influence of mutagenic radiation on the development of insecticide resistance
- HOCKING, B.**
Mosquito studies in Edmonton area
- JACKSON, H.**
Studies on the significance of staphylococci in the manufacture of cheddar cheese (complete)
- JACKSON, H.**
Modification (microbiological and enzymatic) of seed proteins for human consumption
- KNOWLES, R. H.**
The effect of light quality and temperature in germination of seeds of woody plants
- LOVE, H. C.,
BERG, E. R., &
MacHARDY, F. V.**
Cattle feeding in Alberta — a production economic study
- LOVE, H. C., &
McBEATH, D. K.**
The differential response of barley varieties to nitrogen and phosphorus fertilization and determination of economic optimum rates of application for each variety
- MacHARDY, F. V.**
Effect of temperature on the keeping quality of tough and damp cereal grains
- McQUITTY, J. B.**
Effects of aeration and temperature on the composition and odours of slurry from intensively housed cattle
- MANNING, T. W., &
SCHULTZ, W. M.**
Farm trends and prospects in Alberta
- MILLIGAN, L. P.**
Factors controlling urea utilization in the ruminant
- MILLIGAN, L. P.**
The use of ammonia for protein synthesis in the rumen
- NIELSEN, N. O.**
Pathogenesis of enteric colibacillosis of the newborn pig
- PETERSEN, T. A., &
ROGERS, W. B.**
Rate of farmer adoption of new technology as related to selected socioeconomic factors
- PLUTH, D. J.**
Productivity ratings for soil types in Edson and Whitecourt map areas

PRESTON, T. A.
Compilation of time

PRESTON, T. A.
Potato harvester damage studies (complete)

ROBBLEE, A. R.
Studies on hock disorder in turkey poults

ROBERTSON, J. A.
Quality of barley grown with various fertilizers

ROBERTSON, J. A.
Nature of available phosphorus in Alberta soils

ROBERTSON, J. A., &

DUBETZ, S.
Potato irrigation experiment

ROGERS, W. B.
The effect of changes in social institutions upon rural communities

SCHULTZ, W. M.
The farmers' managerial characteristics and farm success—a pilot study

SMITH, W. E.
Applied genetical research leading to the improvement of barley, flax, wheat

STEPHANSON, B. T.
Tractor accident survey and research

STEPHANSON, B. T.
Farm tractor repair costs and comparison of cost of operation of diesel, gasoline and L.P.-gas tractors

TOOGOOD, J. A.
The nutritive value of crops grown on Grey Wooded Soils

TOOGOOD, J. A.
Computer applications of soil test data from Alberta Soil & Feed Testing Laboratory

TOOGOOD, J. A., &

COOK, F. D.
Effects of pipeline installations on crop yields and initial studies on effects of petroleum on soils

TOOP, E. W.
Relationship of temperature and mineral nutrition to carbon dioxide enrichment

VANDEN BORN, W. H.
Green foxtail growth habits and control

VANDEN BORN, W. H.
Herbicide testing in field and greenhouse experiments

WARRACK, A. A., &

HAWKINS, M. H.
A study of least-cost alternatives for assembly of Alberta hogs

WEBSTER, A. J. F.
Quantitative studies on the environmental physiology of livestock

WEBSTER, G. R.,

LOVE, H. C. &

ROBERTSON, J. A.
Crop yield and quality on certain "Bench Mark" soils as related to environmental and soil variables; determination of economic optima

WOOD, F. W.
Caramelization defect of vacuum-packed corn

ZALIK, S.
Studies on lipids and nucleic acids of cereal seeds and seedlings

GRANTEE(S) NAMES
 AND TITLES OF ALL
 PROJECTS AWARDED
 ALBERTA AGRICULTURAL
 RESEARCH TRUST
 GRANTS

ALBERTA AGRICULTURAL

STATEMENT OF CONTRIBUTIONS, INCOME AND DISBURSEMENTS FOR THE FISCAL YEAR ENDED AUGUST 31, 1968

CONTRIBUTIONS:

Government	\$100,000.00	
Industry	31,000.00	
	<u> </u>	\$131,000.00

INCOME:

Investments	19,703.13	
	<u> </u>	\$150,703.13

DISBURSEMENTS:

Research Grants	\$145,437.28	
Administrative allowance	14,543.73	
	<u> </u>	159,981.01

DEFICIT

FOR THE YEAR ENDED AUGUST 31, 1968 ..	\$ (9,277.88)
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ADD: RETAINED CONTRIBUTIONS,

AUGUST 31, 1967	357,116.29
	<u> </u>

BALANCE: RETAINED CONTRIBUTIONS,

AUGUST 31, 1968	<u><u>\$347,838.41</u></u>
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RESEARCH TRUST

CUMULATIVE STATEMENT OF CONTRIBUTIONS,
INCOME AND DISBURSEMENTS
FROM APRIL 1, 1966 TO AUGUST 31, 1968

CONTRIBUTIONS:

Government	\$700,000.00	
Industry	84,220.28	
	<u> </u>	\$784,220.28

INCOME:

Investments		49,144.14
		<u> </u>
		\$833,364.42

DISBURSEMENTS:

Research Grants	\$441,387.28	
Administrative allowance	44,138.72	
	<u> </u>	485,526.01

BALANCE: RETAINED CONTRIBUTIONS,

AUGUST 31, 1968		<u><u>\$347,838.41</u></u>
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CONTRIBUTIONS

from sources listed
are gratefully acknowledged

April 1, 1966 - August 31, 1967

Alberta Dairymen's Association
Alberta Potato Commission
Allied Chemical Services Limited
Bank of Nova Scotia
Calgary Power Limited
Canada Packers Limited
Canadian Imperial Bank of Commerce
Canadian Utilities Limited
City of Edmonton Parks Department
Cominco Limited
Federated Cooperatives Limited
Northwest Nitro Chemicals Limited
Royal Bank of Canada
Sherritt Gordon Mines Limited
Toronto-Dominion Bank
United Grain Growers Limited
Western Cooperative Fertilizers Limited

TOTAL \$53,220.28

September 1, 1967 - August 31, 1968

Alberta Dairymen's Association
Alberta Potato Commission
Bank of Montreal
Canadian Lacombe Hog Breeder's Association
Cyanamid of Canada Limited
Gainers Limited
Imperial Oil Limited
Northwest Nitro Chemicals Limited
Royal Bank of Canada
Sherritt Gordon Mines Limited
Western Cooperative Fertilizers Limited

TOTAL \$31,000.00

